What is claimed is:

1. An apparatus for transmitting a graphic signal generated by a graphic signal generation unit to a display unit, the apparatus comprising:

a transmission interface unit which:

compares a current graphic signal with a previous graphic signal and compresses the current graphic signal to generate transmission data based on the comparison,

modulates the transmission data together with header information into an optical signal for transmission via a single channel, and

transmits the optical signal;

an optical transmission medium which communicates the transmitted optical signal; and

a reception interface unit which regenerates a graphic signal based on the transmission data and header information contained in the optical signal and transmits the regenerated graphic signal to the display unit.

2. The apparatus of claim 1, wherein the transmission interface unit comprises:

an image compression processor which outputs the transmission data and the header information based on the comparison;

a DC-balancing encoding unit which DC-balances the transmission data and header information;

a serialization unit which serializes the DC-balanced transmission data and header information, to output a serialized signal; and

an optical transmission unit which converts the serialized signal into the optical signal and transmits the optical signal to the optical transmission medium.

3. The apparatus of claim 2, further comprising a first memory which stores the previous graphic signal.

4. The apparatus of claim 2, wherein the image compression processor outputs a bitstream comprising the compressed transmission data and header information, the header information comprising:

a bitstream indicating position information of the current graphic signal;

a data enable bit of the current graphic signal;

a bitstream comprising a horizontal/vertical synchronization signal,

a control bitstream; and

an error correction bitstream for correcting errors of the bitstreams.

5. The apparatus of claim 2, wherein the image compression processor compresses the current graphic signal to an MSB or an LSB bitstream according to whether the current graphic signal has portions which differ from the previous graphic signal, and outputs the MSB bitstream or the LSB bitstream as the transmission data.

6. The apparatus of claim 5, wherein the image compression processor outputs one of the MSB bitstream, the LSB bitstream, and another bitstream as the transmission data, where the another bitstream is determined by a predetermined set command.

7. The apparatus of claim 2, wherein the image compression processor comprises:

an image compression block which outputs the transmission data and outputs the predetermined header information based on the transmission data;

an error correction encoding unit which encodes information for correcting error of the header information;

a shifting unit which shifts out the encoded error-corrected header information if the encoded header information has a predetermined minimum number of bits; and

a switching unit which switches the transmission data and the shifted header information based on a clock input to combine the transmission data and the shifted header information.

8. The apparatus of claim 1, wherein the reception interface unit comprises:

an optical reception unit which converts the optical signal received from the optical transmission medium into an electrical graphic signal;

a de-serialization unit converts the electrical graphic signal into a parallel graphic signal;

a decoding unit which decodes the parallel graphic signal into a compressed graphic signal; and

a image decompression processor which decompresses the decoded signal and transmits the decompressed decoded graphic signal to the display unit as the regenerated graphic signal.

9. The apparatus of claim 8, further comprising a second memory which stores the compressed graphic signal.

10. The apparatus of claim 8, wherein the image decompression processor comprises:

a demultiplexer which demultiplexes the compressed graphic signal output from the decoding unit into transmission data and header information;

a shifting unit which serially shifts out the demultiplexed header information;

an error correction decoding unit which decodes an error of the encoded header information if the shifted header information has a predetermined minimum number of bits; and

an image decompression block which regenerates the graphic signal from the demultiplexed transmission data and the decoded header information.

11. A method of transmitting a graphic signal generated by a graphic signal generation unit to a display unit using an optical transmission medium, the method comprising:

compressing a current graphic signal based on a comparison of the current graphic signal and a previous graphic signal and generating transmission data based on the comparison,

modulating the transmission data together with header information into an optical signal for transmission via a single channel;

transmitting the optical signal via the optical transmission medium;

regenerating a graphic signal based on the transmission data and the header information included in the optical signal; and

transmitting the regenerated graphic signal to the display unit.

12. The method of claim 11, wherein the modulating comprises:

DC-balancing the transmission data and header information;

serializing the DC-balanced transmission data and header information; and

converting the serialized DC-balanced transmission data and header information into the optical signal.

13. The method of claim 12, wherein, the header information comprises:

a bitstream indicating a position of the current graphic signal,

a data enable bit of the current graphic signal,

a horizontal/vertical synchronization signal,

a control bitstream and

an error correction bitstream for correcting error of the bitstreams.

14. The method of claim 13, wherein the generating of the transmission data comprises:

compressing the current graphic signal to an MSB or an LSB bitstream according to whether the current graphic signal differs from the previous graphic signal and

outputting the MSB bitstream or the LSB bitstream as the transmission data.

15. The method of claim 14, further comprising outputting one of the MSB bitstream, the LSB bitstream and another bitstream as the transmission data, wherein the another bitstream is output by a predetermined set command.

16. The method of claim 12, further comprising:

correcting an error of the header information and encoding the error-corrected header information;

shifting the encoded error-corrected header information into a predetermined serial bitstream if the encoded header information has a predetermined minimum number of bits; and

switching the transmission data and the shifted header information.

17. The method of claim 11, wherein the regenerating of the graphic signal comprises:

converting the optical signal into an electrical signal;

converting the electrical signal into a parallel signal;

decoding the parallel signal into the transmission data and the header information; and

decompressing the compressed decoded transmission data based on the header information to generate a decompressed graphic signal, and

transmitting the decompressed decoded graphic signal to the display unit.

18. The method of claim 17, wherein the converting of the electrical signal to a parallel electrical signal comprises:

demultiplexing the electrical signal into the transmission data and the header information; and

serially shifting out the demultiplexed header information.

19. The apparatus of claim 8, wherein the de-serialization unit comprises:

a clock divider which outputs a clock signal having a lesser frequency than an input clock;

a D-flip flop which synchronizes the electrical graphic signal with the lesser frequency clock signal;

a shift register which stores data output from the D flip-flop and shifts out the stored data when the stored data has a predetermined number of bits; and

a parallel register which stores the shifted out data.

20. An apparatus for transmitting graphic signals via a single channel optical transmission medium, the apparatus comprising:

a processor which compares a current one of the graphic signals with a previous one of the graphic signals and outputs:

transmission data comprising a first number of least significant bits (LSBs) of the current graphic signal if the current graphic signal is the same as the previous graphic signal, or

transmission data comprising a second number of most significant bits (MSBs) of the current graphic signal if the current graphic signal differs from the previous graphic signal, and

header information comprising information which indicates whether the transmission data comprises the LSBs or the MSBs;

an error correction encoder which adds error correction coding information to the header information;

a multiplexer which combines the error correction coded header information and the transmission data into a parallel bitstream;

a serializer converts the parallel bit stream into one serial bitstream; and

an optical converter which converts the one serial bitstream to a serial optical signal.

21. The apparatus of claim 20, wherein the current graphic signal and the previous graphic signal are adjacent frames and the processor compares corresponding pixel data of the adjacent frames.

22. The apparatus of claim 20, wherein the current graphic signal and the previous graphic signal are corresponding lines of adjacent frames and the processor compares corresponding pixel data of the corresponding lines.

23. The apparatus of claim 20, wherein the current graphic signal and the previous graphic signal are a plurality of corresponding lines of adjacent frames and the processor compares corresponding pixel data of the plurality of corresponding lines.

24. The apparatus of claim 20, wherein the transmission data comprises R, G and B channels of the graphic signal and the number of MSBs or the number of LSBs transmitted is one half a number of bits assigned to a channel.

25. The apparatus of claim 20, wherein the transmission data comprises R, G and B channels of the graphic signal and the number of MSBs or the number of LSBs transmitted is one fourth a number of bits assigned to a channel.

26. The apparatus of claim 20, wherein the information which indicates whether the LSBs or the MSBs are included in the transmission data is a predetermined number of bits having a first value where MSBs are included and a second value where LSBs are included.

27. An apparatus for recovering a graphic signal from a serial bit stream, the serial bitstream comprising a compressed graphic signal having one of a first number of most significant bits (MSBs) and a second number of least significant bits (LSBs) and error correction coded (ECC) header information which designates whether the compressed graphic signal comprises the MSBs or the LSBs, the apparatus comprising:

a phase locked loop which phase locks the serial bit stream to generate a clock signal;

a shift register which shifts out the serial bits into a parallel bit stream according to the generated clock signal;

a demultiplexer which separates the parallel bit stream into a first parallel bit stream corresponding to the compressed graphic signal and a second parallel bit stream corresponding to the ECC header information;

an ECC decoder which recovers header information from the second parallel bit stream which designates whether the first parallel bit stream comprises the MSBs or the LSBs

a decompressor which regenerates a graphic signal based on the first parallel bitstream and the recovered header information.

28. An apparatus for compressing a graphic signal for transmission via a single channel optical transmission medium, the apparatus comprising:

a first memory which stores a first graphic signal;

a processor which compares a second graphic signal with the stored graphic signal and outputs:

transmission data comprising a first number of least significant bits (LSBs) of the second graphic signal if the second graphic signal is the same as the stored graphic signal, or

transmission data comprising a second number of most significant bits (MSBs) of the second graphic signal if the second graphic signal differs from the first graphic signal, and

header information comprising information which indicates whether the transmission data comprises the LSBs or the MSBs.

29. The apparatus of claim 28, further comprising:

an error correction encoder which adds error correction coding information to the header information; and

a multiplexer which combines the error correction coded header information and the transmission data into a common bitstream.

30. The apparatus of claim 28, wherein:

the graphic signal comprises components corresponding to a plurality of channels; and

the processor further comprises:

a plurality of image compression modules, each of which compares one of the plurality of component signals of the first graphic signal with a respective one of corresponding component signals of the second graphic signal to output respective components of the transmission data and a respective indicator signal based on the respective comparisons, and

a logic circuit which combines the respective indicator signals to output the header information which indicates whether the transmission data comprises the LSBs or the MSBs.